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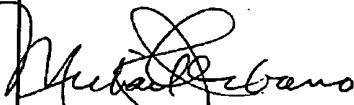
NOV 10 2003

Date: November 10, 2003	No. Pages (incl. cover): 11
To: Examiner Joseph H. Nguyen	From: Michael J. Urbano Intellectual Property Attorney
Location: USPTO (Group 2815)	Location: 1445 Princeton Drive Bethlehem, PA 18017-9166
Phone No: (703) 308-1269	Phone No.: 610-691-7710 Fax No: 610-691-8434
Fax No: (703) 872-9306	Subject: Application SN 09/883,542 Capasso 68-107-2-21-3-37

**RESPONSE TO FINAL OFFICE ACTION****Examiner Nguyen:**

Attached is a response to a FINAL Office action dated August 12, 2003 in the above-captioned case. Please acknowledge receipt. Thank you.

Respectfully,



Michael J. Urbano  
Attorney for Applicant(s)

Cc: J. F. McCabe, Esq.

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IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

**Patent Application**

**Inventors(s):** Federico. Capasso  
Alfred Yi Cho  
Raffaele Colombelli  
Claire F. Gmachl  
Hock Min Ng  
Deborah Lee Sivco

**Case:** 68-107-2-21-3-37

**Serial No.:** 09/883,542

**Filing Date:** June 18, 2001

**Examiner:** Joseph H. Nguyen

**Group Art Unit:** 2815

**Title:** Engineering the Gain/Loss Profile of Intersubband Optical Devices  
Having Heterogeneous Cascades

THE COMMISSIONER OF PATENTS AND TRADEMARKS  
WASHINGTON, DC 20231

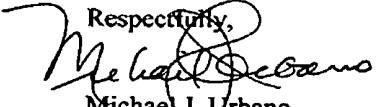
SIR:

Enclosed is a Response to a final Office action in the above-identified application.

**NO ADDITIONAL AMENDMENT FEE IS REQUIRED.**

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge or to credit my **MASTERCARD** (from 2038 attached) as required to correct the error.

Respectfully,

  
Michael J. Urbano  
Attorney for Applicant(s)  
Reg. No. 24, 522  
610-691-7710

Date: 11/10/03

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Michael J. Urbano: 

Capasso 68-107-2-21-3-37  
Serial No. 09/883,542

IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE

OFFICIAL

Patent Application

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SIR:

RESPONSE TO FINAL ACTION

In response to the final Office action of August 12, 2003, please amend the above-captioned patent application as follows:

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